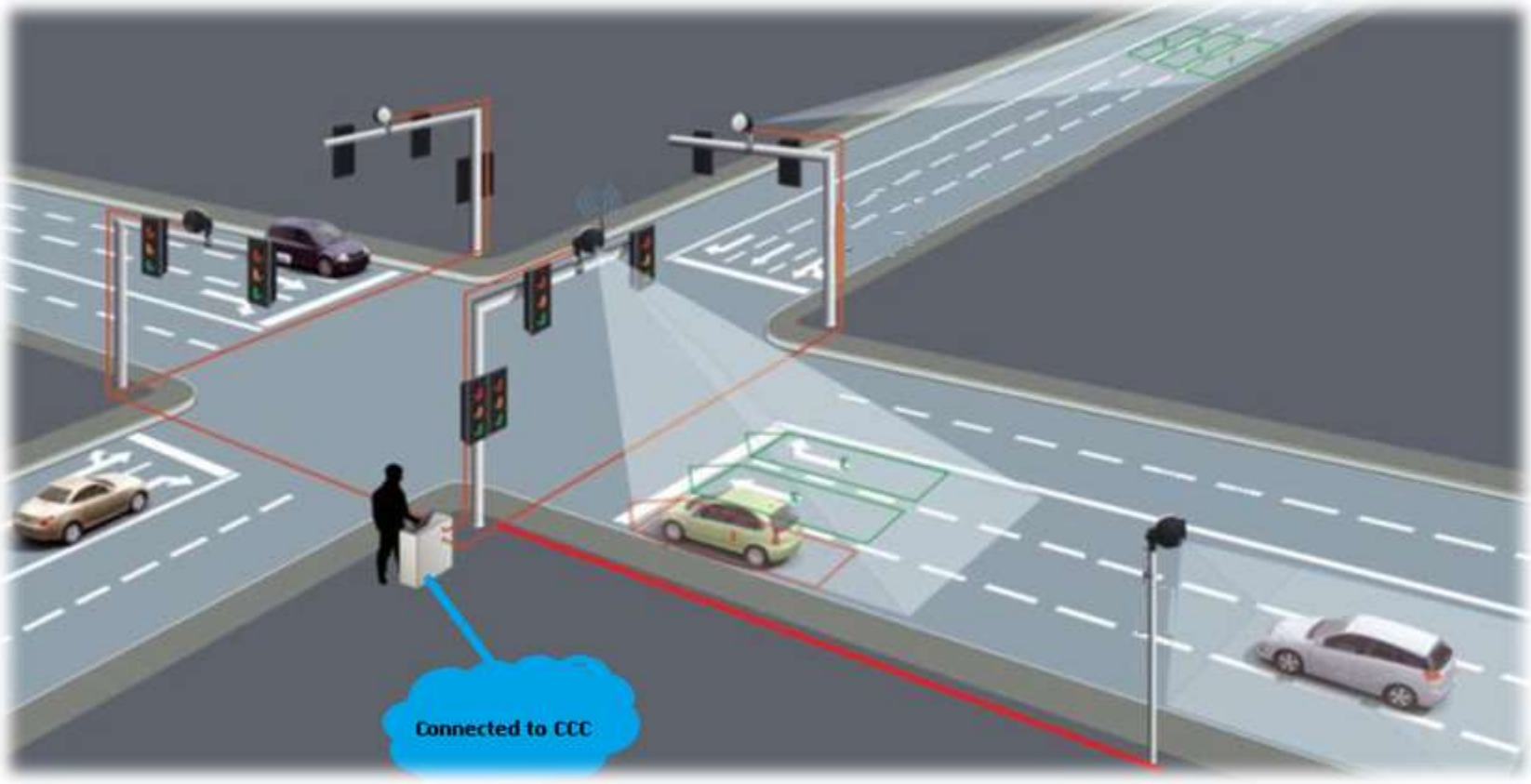
NIC-Based Intelligent Traffic Management Systems (ITMS) & Smart City CCTV and Traffic Management Solutions – Bagalkote

"EYE IN THE SKY"



Vedant Office Automations – Project Summary Revolutionizing Urban Management Through Intelligent Technology

Project Highlights – Bagalkot City

Complete OFC-based Network

High-speed, Reliable Data Backbone For All Smart City Systems.

IP-CCTV Surveillance

PTZ, 12X, ANPR, 4MP & 4K Cameras Provide Clear, Expansive Monitoring Across The City.

NIC-Integrated ITMS

It aims to improve safety, reduce congestion, and enhance overall transportation real-time monitoring.

Public Addressing System

City-Wide Communication Enabled at Major Circles for safety awareness.

Traffic Signals

This intelligent system aims to optimize traffic flow, reduce congestion, and improve overall road safety.

Police Kiosk

Public Safety And Emergency Response at major circles.

Emergency SOS Call Booths

Allow Individuals To Quickly Contact Emergency Services During A Crisis, Often Found in Highways or In Remote Areas.

Public LED Displays

Offering Benefits Like Improved Communication And Information

AI-Powered Violation Detection & ANPR Solutions

AI-Based Violation Detection System Automated detection of traffic violations such as: Helmetless Riding, Triple Riding, Seatbelt Violations, Mobile Usage While Driving Real-time video analytics and event classification Seamless integration with NIC-based ITMS portal

AI-Based ANPR (Automatic Number Plate Recognition)High-accuracy number plate detection for 2W, 3W, LMV, and HMV For ITMS eChallan generation

ITMS Core Infrastructure

Command and Control Centre (CCC)

A Command and Control Centre (CCC) is a centralized facility equipped with advanced technology and personnel for managing, coordinating.

NIC ITMS Software

Robust, integrated traffic management software for efficient control and optimization of urban traffic flow.

ANPR & Violation Capture

24/7 Automatic Number Plate Recognition for continuous monitoring and automated e-Challan system for traffic enforcement.

Data Storage & Servers

Secure, high-capacity infrastructure dedicated to storing and managing all critical smart city data.

Command-and-Control Centre (CCC)

A Command-and-Control Centre (CCC) is a centralized facility equipped with advanced technology and personnel for managing, coordinating, and overseeing various operations, particularly in critical situations. It acts as a hub for monitoring, analyzing, and responding to events, often involving real-time data and communication systems.

Type of Cameras Installed in Bagalkot City

Bullet 12x Camera

- IR Viewable Length 70m
- Max. 12x Zooming

Bullet 4K Camera

- IR Viewable Length 50m
- Max. 4K Resolution

Bullet 4MP Camera

- IR Viewable Length 30mtrs
- Max. 4MP resolution

Box Camera

- AI Based Camera
- License/Number Plate Recognition

PTZ Camera

- 360° Endless
- Zooming 55X (300mtrs)

Multi Directional Camera

- Remotely adjustable FoVs
- Multiple Cameras in One Device

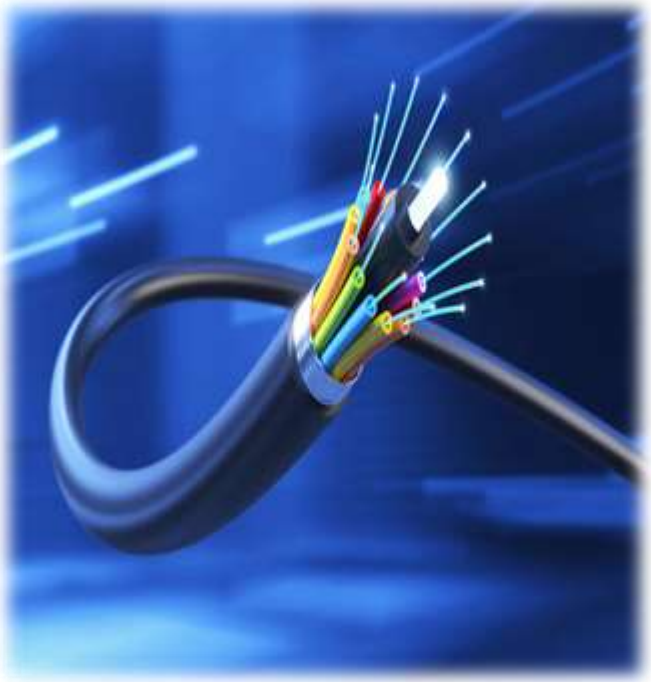
No. of Cameras installed in 92 Locations at Bagalkote City

Place Of CCTV Cameras	No Of CCTV
Bagalkote Old Town	90
Navanagar City	263
Total No. of Cameras	**353**

Type of CCTV Cameras Details

SL	Types Of Cameras	No Of CCTV
1	12X	76
2	4MP	180
3	4K	20
4	PTZ	41
5	Multi Sensor	14*4
6	ANPR	22
	Total Cameras	**353**

Complete OFC-Based Network



A high-speed, reliable data backbone is crucial for the effective functioning of smart city systems, enabling real-time data transmission and analysis for various applications. This backbone typically involves a combination of technologies like fiber optic cables, 5G networks, and robust wireless solutions, ensuring low latency and high bandwidth to support diverse smart city services.

IP-CCTV Surveillance

The combination of PTZ, 12x optical zoom, ANPR, 4MP, and 4K cameras offers a comprehensive surveillance solution for city-wide monitoring. PTZ cameras with 12x zoom provide flexible, wide-ranging coverage, while ANPR (Automatic Number Plate Recognition) technology aids in identifying and tracking vehicles. High-resolution 4MP and 4K cameras ensure detailed video quality for effective monitoring and evidence collection.

NIC-Integrated ITMS

An Integrated Traffic Management System (ITMS) in India is a comprehensive approach to modernizing and optimizing traffic flow using technology. It aims to improve safety, reduce congestion, and enhance overall transportation efficiency through real-time monitoring, data analysis, and automated control systems. Key components include traffic surveillance cameras, data collection sensors, and variable message signs, all working together to provide a more efficient and safer traffic experience.

15 No. of Public Addressing Systems Installed in Bagalkote City

City-wide communication enabled at major junctions typically refers to the implementation of infrastructure and systems that facilitate communication across an entire city, often focused on traffic management and public safety at key intersections. This can involve various technologies like wireless networks, sensors, and data analytics to optimize traffic flow, provide real-time information, and enhance emergency response.

Traffic Signals

Smart Traffic Signals are an evolution of traditional traffic lights, incorporating sensors, cameras, and AI to dynamically adjust signal timings based on real-time traffic conditions. This intelligent system aims to optimize traffic flow, reduce congestion, and improve overall road safety.

15 No. of Police Kiosk Installed in Bagalkote City

In the context of public safety and emergency response, police kiosks and junction boxes serve distinct but sometimes overlapping purposes. Police kiosks are typically used for public communication and interaction with law enforcement, offering a way for citizens to report incidents or seek assistance. Junction boxes, on the other hand, are primarily used for electrical or telecommunications infrastructure, housing connections and wiring. While a police kiosk might incorporate features like a telephone or video call system for direct communication with the police, it is not designed to handle the complex electrical or data connections found in a junction box.

15 No. of Police SOS Installed in Bagalkote City

Emergency SOS call booths are strategically placed call boxes that allow individuals to quickly contact emergency services during a crisis, often found along highways or in remote areas. They are designed for ease of use, typically with a single button to connect with a control center or emergency services. These systems can include features like automatic location sharing and two-way communication.

8 No. of Public LED Displays Installed in Bagalkote

Public LED displays, while offering benefits like improved communication and information dissemination, can also pose safety risks, particularly regarding traffic and driver distraction, especially when displaying dynamic content. The high luminance of these displays can lead to reduced visibility and an increased risk of accidents. Concerns have been raised about the potential for temporary or permanent vision impairment due to intense brightness from LED lights.

Thank You

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