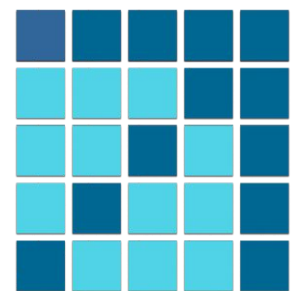




YOUR INTELLIGENT

TRANSPORTATION SYSTEM SOLUTIONS PARTNER

BUSINESS PROFILE



SCAIPL

www.superwaveinfra.com

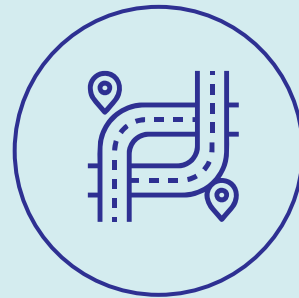
ABOUT SCAIPL

Pioneers in the world of Highway System & Lighting Solutions.

With an unwavering commitment to excellence, we have emerged as a driving force behind India's modernization journey



Emerging leader in the field of turnkey Highway Infrastructure Solution.



One Stop Solution provider for ITS systems & Highway Infrastructure

We are an emerging leader in turnkey Highway Infrastructure Solutions, offering one-stop solutions for ITS systems and Highway Infrastructure. With a focus on reliability, we follow the philosophy of Dynamic Engineering. Our ISO certification, in-house design, manufacturing, and assembling facilities ensure high-quality products and services. Backed by experienced professionals with over a decade of industry experience, we provide efficient solutions to our clients.

We are distinguished by our state-of-the-art infrastructure, customized solutions for ITS systems, in-depth organization with experienced professionals, and expertise in ITS, electrical, civil work, and services. These strengths position us as a reliable and trusted partner in the industry.



Driven by the
philosophy of Dynamic
Engineering based on
reliability



ISO CMMI and STQC
certified company with in
House Design,
Manufacturing &
Assembling Facilities



OUR STRENGTHS

State of the art Infra
solutions with PAN India
services

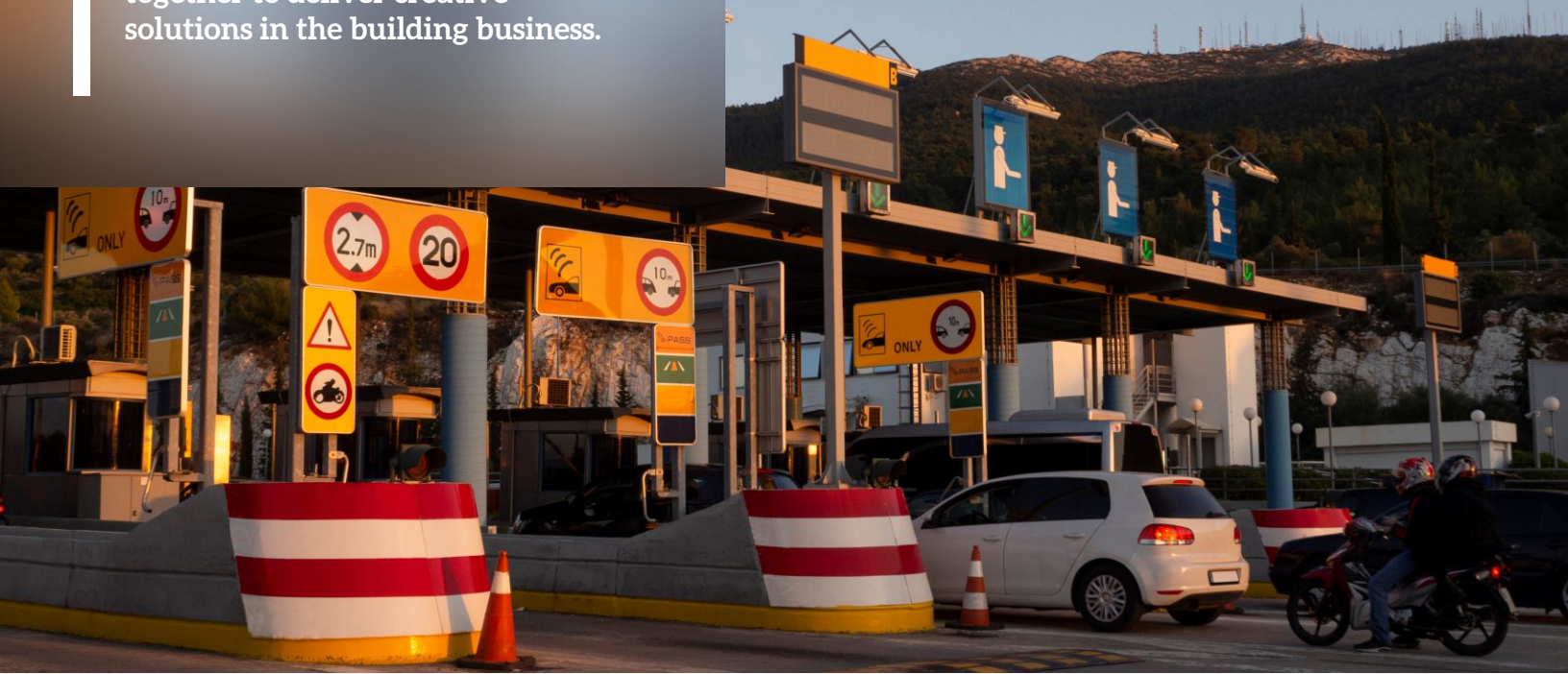
Bespoke ITS
solutions

In depth organized
with experienced
professionals

Expertise in ITS,
Electrical & Tunnel
Management Solutions

Provide high standard of services
to meet customers need and
expectations ethically

We have always believed in
developing long term relationships
with our clients and working
together to deliver creative
solutions in the building business.



We strive to offer our customers end-to-end intelligent transportation solutions, customized system integration and lifecycle services program for smooth traffic flow and safer roads.

We have significant know-how on traffic, transport, and tunnel technologies for building smarter, safer, and more efficient solutions that deliver outstanding business value for our clients on service, security, reliability, and accuracy parameters.

TOLL MANAGEMENT SYSTEM



**DESIGNED TO AUTOMATE
TOLL COLLECTION
REVENUE AND
TRAFFIC DATA
MANAGEMENT**

SCAIPL Toll Management System is a comprehensive solution designed to automate toll collection, revenue and traffic data management, and enhance the overall tolling experience for users.





The system also provides real-time traffic monitoring, enabling operators to manage traffic flow and congestion, which helps to ensure that toll plazas are staffed appropriately and reduce the risk of congestion.

KEY FEATURES OF - SCAIPL TMS

- Automated Toll Collection
- Real-time Traffic Monitoring
- Revenue Management
- User-friendly Interface
- Robust and stable system design
- Ready for CCH Transaction processing & electronic wallet

HIGHLIGHTS OF SCAIPL TMS

- Contactless Toll Collection
- 500+ ETC lanes
- Proven system for both Open & Closed Loop Systems
- In- House development and integration of core products and technology
- Master System Integrator for Bundelkhand Expressway Closed loop Toll System
- Developed for full auditable toll collection with built in controls for fraud prevention
- Scalability to handle increasing numbers of users or road network extensions
- Capable to handle more than 100,000+ PCU per day

SCAIPL tolling solutions is focused on improving the overall tolling experience for users and providing a more efficient and effective tolling system.

ADVANCE TRAFFIC MANAGEMENT SYSTEM

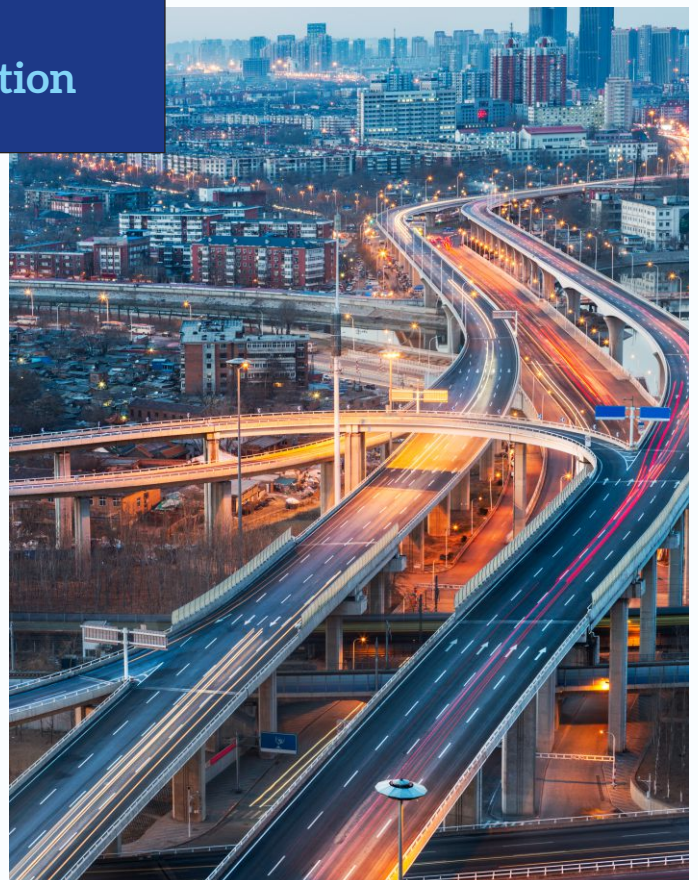
SCAIPL Advance Traffic Management System (ATMS) is an integrated solution that manages and optimizes traffic flow on roadways, highways to minimize the road accident.

The state-of-the-art system is designed to optimize traffic flow, enhance safety, and improve overall transportation efficiency on highways. Specifically, SCAIPL's ATMS helps the highway authorities to ensure:

- **Effective Traffic Monitoring**
- **Incident detection & Management**
- **Speed Detection & Control**
- **Real time Information dissemination**

SCAIPL ATMS HIGHLIGHTS

- Successfully commissioned AI based ATMS system on 340kms of Purvanchal Expressway Project
- Master System Integrator for Trans Haryana Expressway ATMS Expressway Project
- Predictive & Proactive Traffic management
- Delivered projects with multi-mode communication including OFC, RF, GSM etc
- Deep Learning versatile platform to ensure automatic incident management & response.
- Capable of AI based Automated Decision making



ATMS FEATURES

INTELLIGENT TRAFFIC CONTROL:

With a network of intelligent sensors and cameras strategically placed along the highway, system captures valuable information on traffic volume, speed, and density to generate actionable insights, allowing traffic operators to make informed decisions and implement effective traffic management strategies advanced.

DYNAMIC TRAFFIC CONTROL:

By integrating with SCAIPL's intelligent monitoring system, traffic signals, variable message signs, and dynamic lane management systems can be adjusted in response to changing traffic patterns ensuring minimized congestion, reduces travel times, and improves the overall efficiency of the highway network.

INCIDENT DETECTION AND MANAGEMENT:

Advanced incident detection technologies such as automatic incident detection (AID) algorithms and surveillance systems provides quick alerts regarding accidents, breakdowns, or other incidents in real-time so that they can quickly dispatch emergency services, redirect traffic, and ensure the safety of all road users.

TRAVELER INFORMATION SYSTEMS:

Keeping travelers informed is essential for a positive travel experience. SCAIPL ATMS provides real-time updates on traffic conditions, road closures, diversions, and estimated travel times disseminated through electronic message boards, mobile applications, and website interfaces, enabling drivers to make informed decisions and choose the most efficient routes.

DATA ANALYTICS AND REPORTING:

Robust data analytics capabilities that transform raw data into meaningful reports and visualizations. Traffic operators can leverage this information to identify trends, pinpoint congestion hotspots, evaluate the effectiveness of traffic management strategies, and make data-backed decisions to optimize traffic flow and enhance overall performance.





OUR FLAGSHIP ATMS PROJECTS

We take immense pride in successfully delivering advanced and efficient ATMS solutions for key national highways and expressways. Our flagship projects demonstrate our expertise in integrating state-of-the-art technologies to enhance traffic flow, safety, and management.

PURVANCHAL EXPRESSWAY

A 340 km stretch equipped with AI-based ATMS, ensuring seamless traffic monitoring and incident management.

TRANS HARYANA EXPRESSWAY

A 175 km critical corridor where we provided comprehensive traffic management and real-time monitoring solutions.

DWARKA EXPRESSWAY :

India's first AI-based ATMS implemented on the Dwarka Expressway by Superwave Communication and Infrsolution Private Limited, spanning 56 km.

DELHI AGRA EXPRESSWAY :

A 184 km key urban expressway, where our advanced traffic management solutions will enhance operational efficiency.

**Improved
visibility and
enhanced
safety for all
road users**

**Dynamic
lighting
control
adjusts to
changing
conditions**

**Reduced
the risk of
accidents.**

HIGHWAY LIGHTING SYSTEM

As the sun sets, ensuring proper illumination along highways becomes essential for maintaining safety and efficiency. SCAIPL's advanced lighting system is designed to enhance visibility, reduce accidents and create a secure environment for all road users.



BENEFITS OF HIGHWAY LIGHTING SYSTEM

- Proactive monitoring and maintenance minimize downtime and ensure uninterrupted lighting operation.
- Sustainability-focused solution with reduced carbon footprint and environmental impact.
- Reduced dependency on fossil fuels, contributing to a greener and more sustainable future.
- Quick and easy installation without the need for extensive electrical infrastructure.



FEATURES

ADVANCED LIGHTING TECHNOLOGY:

SCAIPL employs energy-efficient LED lights that offer superior brightness, longer lifespan, and reduced maintenance costs compared to traditional lighting solutions

INTELLIGENT LIGHTING CONTROL:

Using a centralized control center, our system automatically adjusts lighting levels based on ambient conditions such as traffic volume, weather, and time of day. This dynamic control saves energy and ensures consistent lighting levels, promoting driver comfort and safety throughout the highway.

SMART MONITORING AND MAINTENANCE:

Equipped with sensors and remote monitoring capabilities, the system detects faults, dimming lights, or malfunctions in real-time thus ensuring uninterrupted operation of the lighting system, promoting safer driving conditions.

SOLAR-POWERED EFFICIENCY:

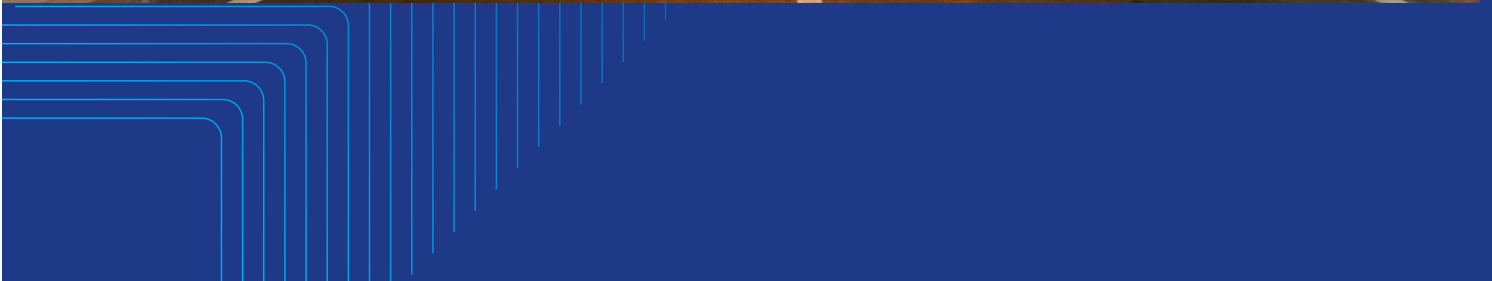
SCAIPL provides solar based Highway lighting which utilizes photovoltaic panels to convert sunlight into electricity. These panels are strategically installed along the highway, capturing solar energy during the day and storing it in high-capacity batteries. During the night, the stored energy powers the LED lights, providing continuous and reliable illumination without reliance on the grid.

COST-EFFICIENCY AND SUSTAINABILITY:

Energy-efficient LED lights reduce power consumption and contribute to lower electricity bills. Additionally, the longer lifespan and reduced maintenance requirements of LED lights translate into significant cost savings over time. By embracing eco-friendly lighting solutions, our system supports environmental sustainability and reduces carbon footprint.

TUNNEL MANAGEMENT SYSTEM

Tunnels play a critical role in modern transportation infrastructure, and ensuring their safe and efficient operation is of paramount importance. Our Integrated Tunnel Management System (ITMS) is designed to monitor, control, and optimize tunnel operations, enhancing safety and facilitating smooth traffic flow



TUNNEL TECHNOLOGY:

Illumination
Standard Ventilation
Ventilation in the event of fire
Air Quality Measurement
Video Surveillance
Acoustic Irradiation
Energy Alarm Systems
Radio Systems
Cable Laying
Pipes for fire-fighting water
Fire Alarm Systems
Fire Extinguishing Systems

TRAFFIC SYSTEMS:

Traffic Control Systems
Traffic Signs
Information Boards
Transport Sign Gantries
Route Stations
Cable Laying
Roadside Borders
Black Ice Warning Systems
Environmental Data Capture
Traffic Monitoring/Management
Video Traffic and Event Observation
Light Signal Systems
Weighing Systems

PROCESS CONTROL ENGINEERING:

Traffic and Tunnel Control Rooms
Maintenance Equipments
SCADA Systems
Control
Transmission and Network
Systems of All Kinds
Distributed Control Systems
Optical Wave Guide
Infrastructure

HIGHLIGHTS: SCAIPL TUNNEL MANAGEMENT SYSTEM

- Energy-efficient operations, reducing power consumption and promoting sustainability.
- Data-driven decision-making for continuous improvement and optimized tunnel performance.
- Comprehensive expertise in electrical, mechanical, and plumbing systems for tunnels.
- Reliable and efficient infrastructure solutions tailored to tunnel requirements.
- Integration of intelligent systems for real-time monitoring, incident detection, and emergency response.
- Optimized traffic flow, reduced congestion, and improved tunnel capacity through dynamic traffic control.
- Energy-efficient practices and sustainable operations for reduced environmental impact.
- Skilled professionals with a commitment to delivering projects on time and with the highest quality.



Successfully commissioned Tunnel MEP works for Kiratpur
Nerchwok project with a cumulative length of 4Kms



YOUR INTELLIGENT TRANSPORTATION SYSTEM SOLUTIONS PARTNER



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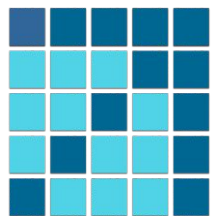
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