



Smart Mobility

Traffic Control and EV Guidance

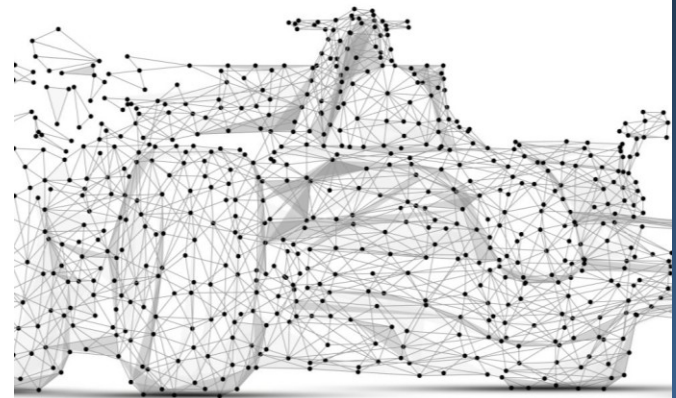
A transformative approach to smart mobility and energy optimization



Introduction

The Personal Intelligent Access Node (PeAN) is a next-generation communication and computation device designed to provide decentralized, real-time, and adaptive control across connected networks

In transportation, PeAN enables a cooperative, data-driven environment between vehicles and infrastructure, offering major improvements over traditional GPS-navigation systems.





Traffic Control and Congestion Reduction

PeAN nodes act as localized communication hubs between vehicles and infrastructure,

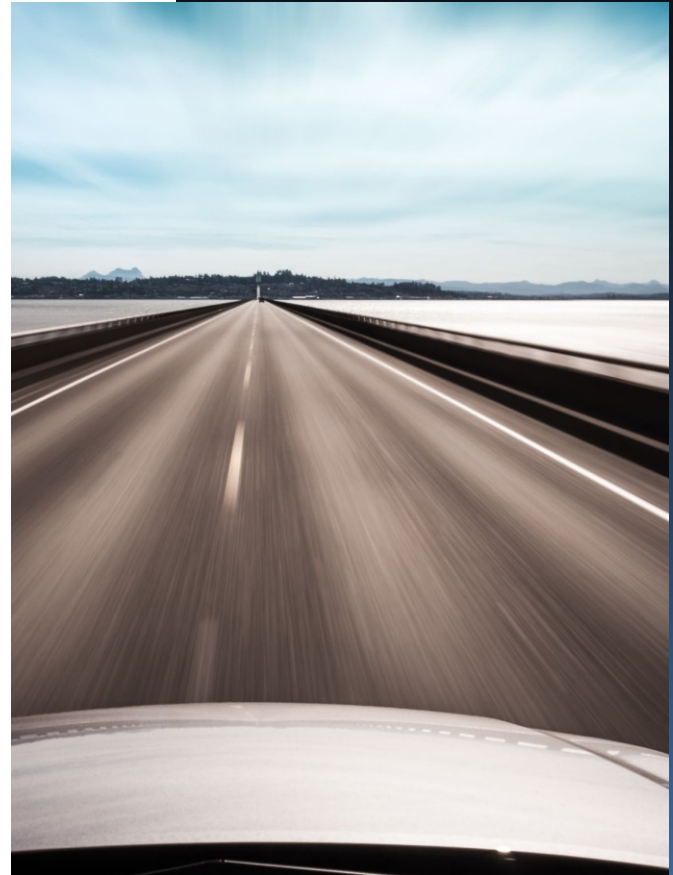


Collect data and coordinate traffic in real-time, reducing congestion by up to 40% through route optimization, entry/exit ramp management, and predictive rerouting.



Road Safety Enhancements

PeAN enhances safety by delivering proactive driving assistance, alerting drivers to upcoming hazards, optimizing lane changes, and supporting emergency response with instant data transfer and GPS precision.





Smart EV Charging Guidance

PeAN can calculate exact range and identify optimal charging stations in real-time

It creates charging schedules tailored to EVs' needs and ensures charging stops are efficient, avoiding range anxiety and unnecessary delays.

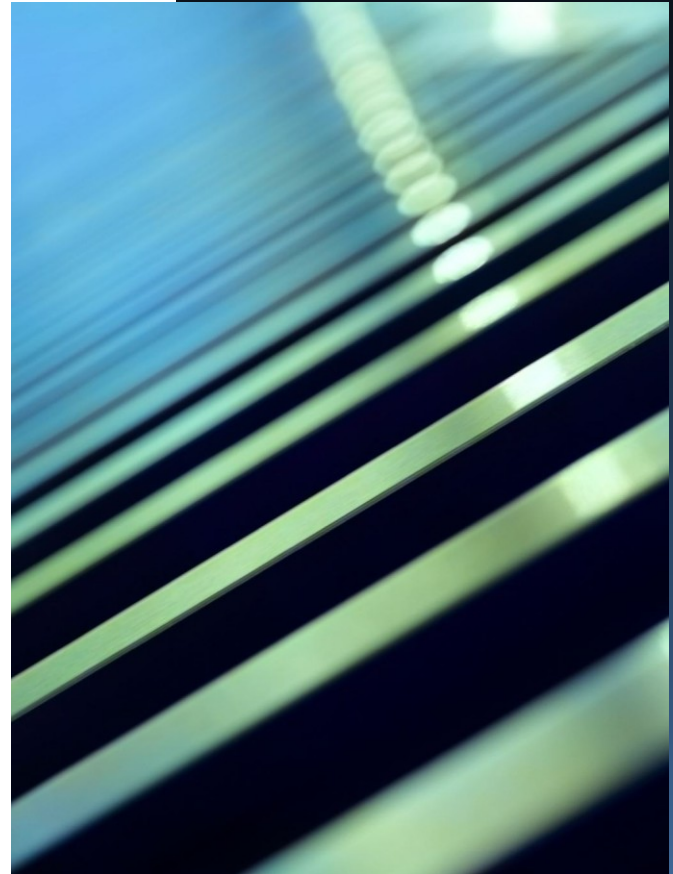




Comparison with Traditional Systems

PeAN outperforms centralized systems by providing decentralized, low-latency, vehicle-integrated decision-making

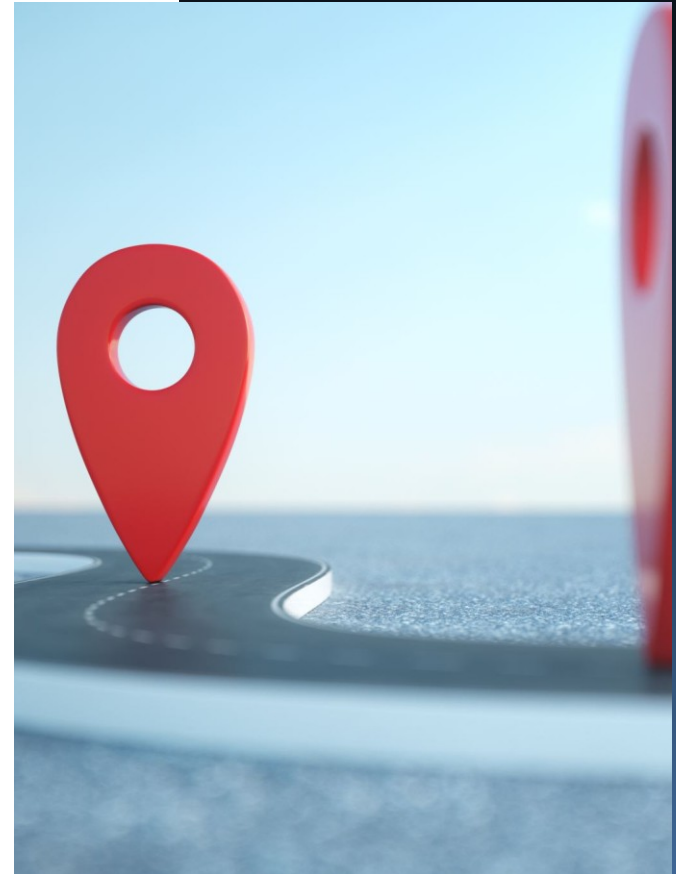
It personalizes driving, charging, and stopping decisions, enhancing real-time responsiveness and user satisfaction.





User Experience and Behavioral Impact

PeAN encourages energy-efficient and stress-free driving, offers gamified feedback, and supports predictive and adaptive travel planning, especially beneficial for EV users.

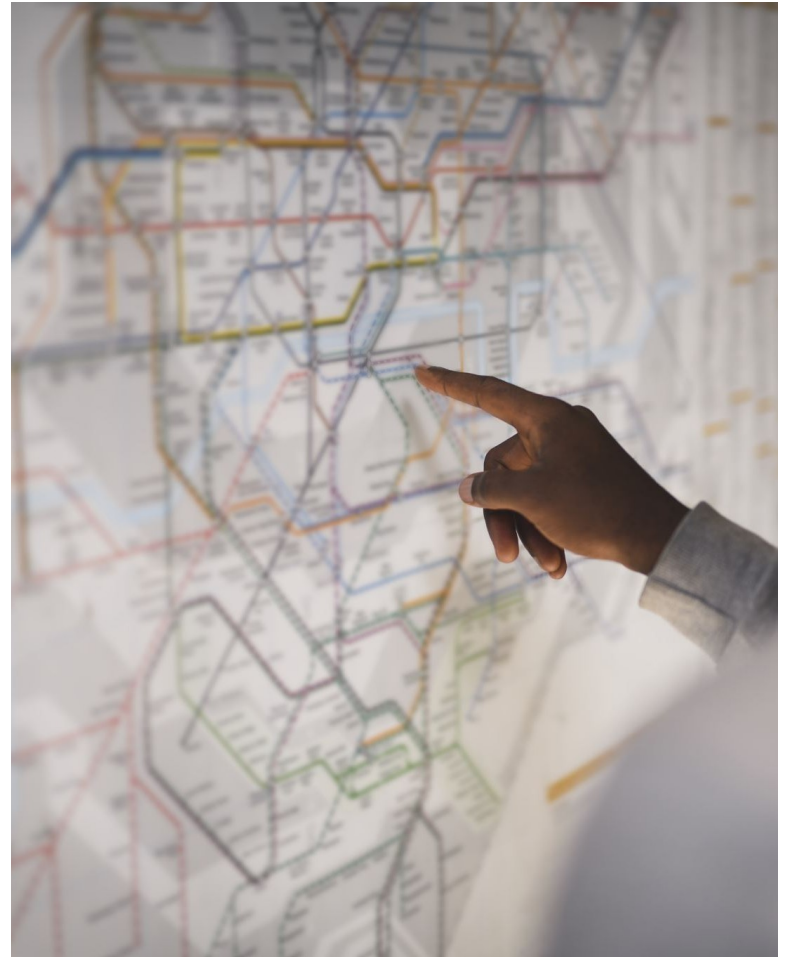




Conclusion

PeAN is a transformative solution for vehicle traffic and EV ecosystems

It surpasses Google Maps with real-time, decentralized intelligence, leading to safer, more efficient, and smarter road usage.





Next Steps

Deployment Scenarios

Initial deployments in smart cities and EV-dense regions are recommended,

Future integration includes **autonomous vehicle systems** and collaboration with **infrastructure providers**.

