



AI-POWERED EARTHQUAKE RISK MANAGEMENT SOLUTIONS

SMART TUNNEL

Tunnel Structural Health Monitoring

Ensure the Safety and Longevity of
Your Infrastructure



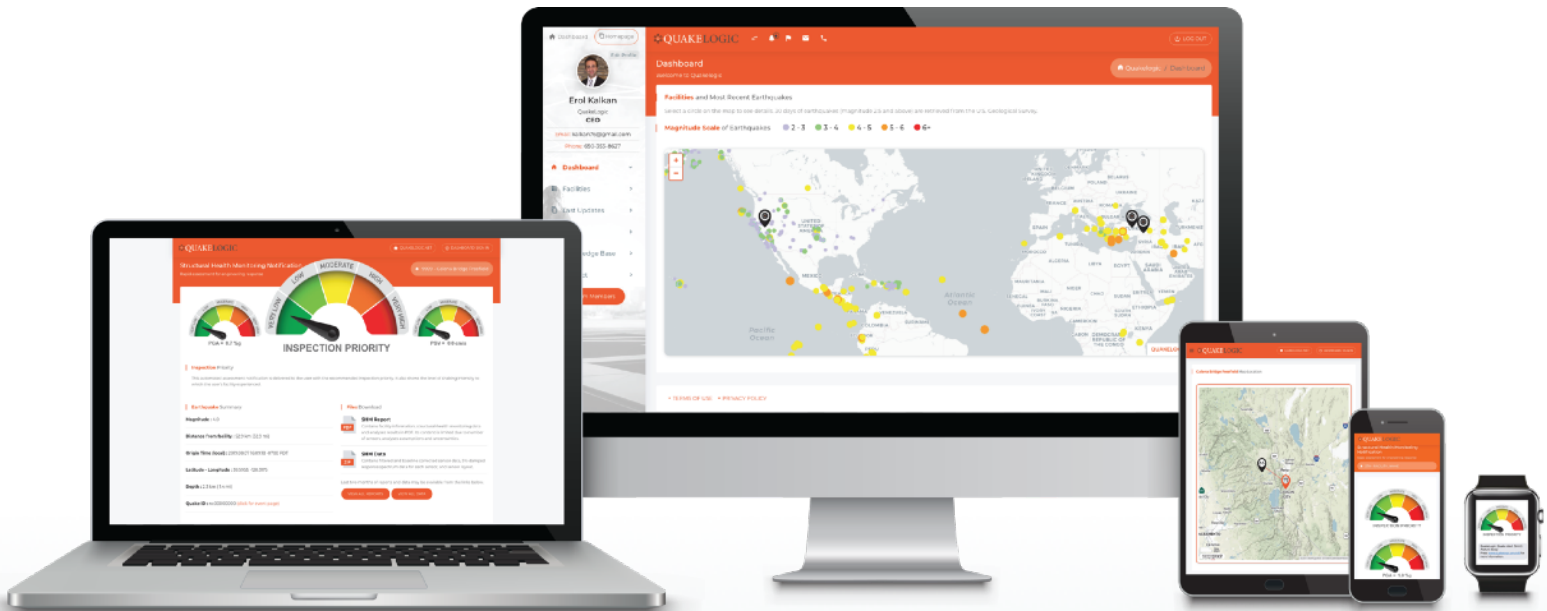
WHAT IS TUNNEL STRUCTURAL HEALTH MONITORING?

Tunnel Structural Health Monitoring (TSHM) is a cutting-edge approach to assessing and managing the condition of tunnels. This proactive method uses advanced sensors and data analytics to detect, diagnose, and predict potential issues, ensuring the safety, durability, and efficiency of these structures.



KEY BENEFITS OF TSHM

- Enhance safety and reliability
- Extend the service life of tunnels
- Optimize maintenance and repair strategies
- Minimize downtime and disruptions
- Improve resource allocation and cost management



Only the QuakeLogic's cutting-edge technology gives the most critical information on tunnel's performance rapidly after shaking to prioritize post-quake inspections and prevent unnecessary evacuations and interruptions to ongoing traffic and operations.



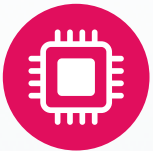
OUR ADVANCED TSHM SYSTEM

Our state-of-the-art TSHM system integrates the latest sensor technologies, data processing, and visualization tools to deliver comprehensive, real-time insights into your tunnel's health.

KEY COMPONENTS



- **Sensors:** Robust and accurate sensors designed to monitor various structural and environmental parameters, such as deformation, strain, vibration, temperature, and humidity.



- **Data Acquisition:** Our high-speed data acquisition system ensures seamless data collection, transmission, and storage for efficient analysis.



- **Data Analysis & Visualization:** Our powerful software processes and analyzes the collected data, transforming it into actionable insights presented in an intuitive, easy-to-understand format.



- **Alerts & Notifications:** Customizable alert thresholds keep you informed of potential issues, enabling swift intervention and decision-making.

EARTHQUAKE

Tunnel Earthquake Early Warning System

Our Tunnel Earthquake Early Warning (EEW) system detects the onset of an earthquake and estimates its probable intensity up to 30 seconds prior to the most intense shaking, enabling management to make well-informed decisions in crucial moments when every second matters.



The Tunnel Earthquake Early Warning (EEW) system is designed to enable rapid response measures when seismic events are detected. These measures may include:

- Sending notifications,
- Activating public announcement (PA) systems,
- Closing or opening gates,
- Adjusting electronic road signs, traffic lights, and
- Quickly shutting down critical equipment.

By taking these actions, the tunnel EEW system aims to protect lives and minimize damage to assets during earthquakes.

SMART & SAFE TUNNELS

We create smart & safer tunnels by combining cloud-computing and artificial intelligence (AI) with advanced sensor technologies.



Invest in Your Infrastructure's Future

By implementing our Tunnel Structural Health Monitoring system, you can:

- Protect your investment
- Ensure the well-being of your community
- Promote sustainable development

Contact Us Today

Learn more about how our TSHM solutions can safeguard your tunnels and underground structures. Reach out to our team of experts at

sales@quakellogic.net to discuss your specific needs and requirements.

**Discover Our Comprehensive Structural
Health Monitoring Solutions Online**



” Proper monitoring, surveillance and maintenance can provide early detection and intervention — Emergency Response

QUAKELOGIC

AI-POWERED DISASTER RISK MANAGEMENT SOLUTIONS

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