

Case Study — Real-Time Landslide Monitoring Deployment

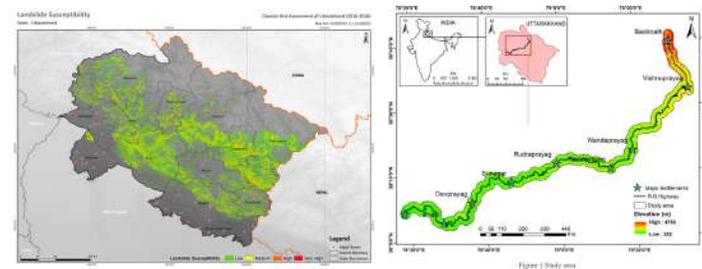
Project Overview

Alertis deployed an AI-enabled Landslide Early Warning & Monitoring System along a high-risk Himalayan highway corridor to demonstrate real-time terrain and infrastructure monitoring. The system operated continuously for six months, providing live environmental and structural data through a remote dashboard accessible from anywhere.



The Challenge

The site is located in a geologically sensitive mountain region characterized by fractured rock formations, steep terrain, and intense seasonal rainfall—conditions commonly associated with slope instability and rockfall risk.



Conventional inspection-based monitoring was:

- Infrequent
- Risky for personnel
- Unable to detect early movement

Alertis Solution

Alertis deployed a modular monitoring system integrating:

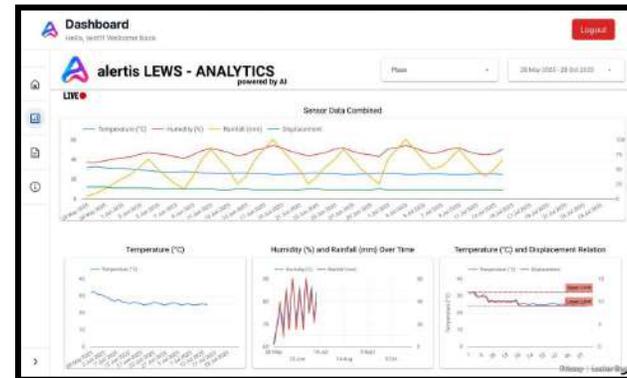
- Structural displacement sensors
- Environmental monitoring instruments
- Wireless communication network
- Solar-powered autonomous devices
- Cloud dashboard + AI analytics (alertis.ai)



The system was installed, calibrated, and began continuous monitoring after baseline configuration.

How the System Works

Field sensors continuously collect environmental and structural data and transmit it securely to the Alertis dashboard. Stakeholders can log in from anywhere to view live site conditions, historical trends, and automated alerts. This unified intelligence layer enables proactive decision-making and early hazard detection.



Results

During six months of continuous operation:

- System performed reliably in real terrain conditions
- Sensor readings remained stable and consistent
- No natural displacement was detected
- External disturbances were correctly identified

These findings validated the platform’s reliability and field readiness.



Impact Delivered

- ✓ Reduced manual inspection requirements
- ✓ Improved safety for workers and commuters
- ✓ Early detection capability for hazards
- ✓ Real-time situational awareness
- ✓ Data-driven engineering decisions

Why This Matters

High-risk environments require continuous monitoring—not periodic checks. Alertis transforms complex terrain risks into real-time intelligence, enabling authorities and infrastructure operators to act before disasters occur.

Takeaway

Alertis transforms complex terrain risks into real-time actionable insights—helping prevent disasters before they occur.

Sensing Today, Securing Tomorrow.

Alertis HQ

Dehradun, Uttarakhand, India



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