

Catastrophic consequences result from dam failures due to earthquakes, making reliable assessment of dam safety indispensable, even in regions with low seismicity.

Reliable observation of structural behavior before, during, and after an earthquake is required to fully assess safety, validate design assumptions, and predict the earthquake resistance of dams. Surrounding regions are also susceptible to the impact of dams, and must be included in any safety assessment.

KMIDam puts a complete Dam Management Platform under your control.



KMIDam

Kinematics Management of
Infrastructure for Dams

www.kinematics.com

Manage your portfolio of dams with a combination of smart sensing technology, real-time processing, and predictive computations. Automated information tools deliver a solution tailored to your unique needs to ensure safe and compliant operational continuity.

- Immediately understand the impact of seismic events on your structures to eliminate guesswork and enable better informed decision making
- Understand gradual changes to your structures to address their impact before they become costly problems
- Monitor the impact of reservoirs on the seismicity of surrounding regions
- Achieve and maintain compliance with local regulations

Understand the Status of Your Structures

KMIDam was designed to provide a complete platform to improve your understanding of the many facets of managing your dams.

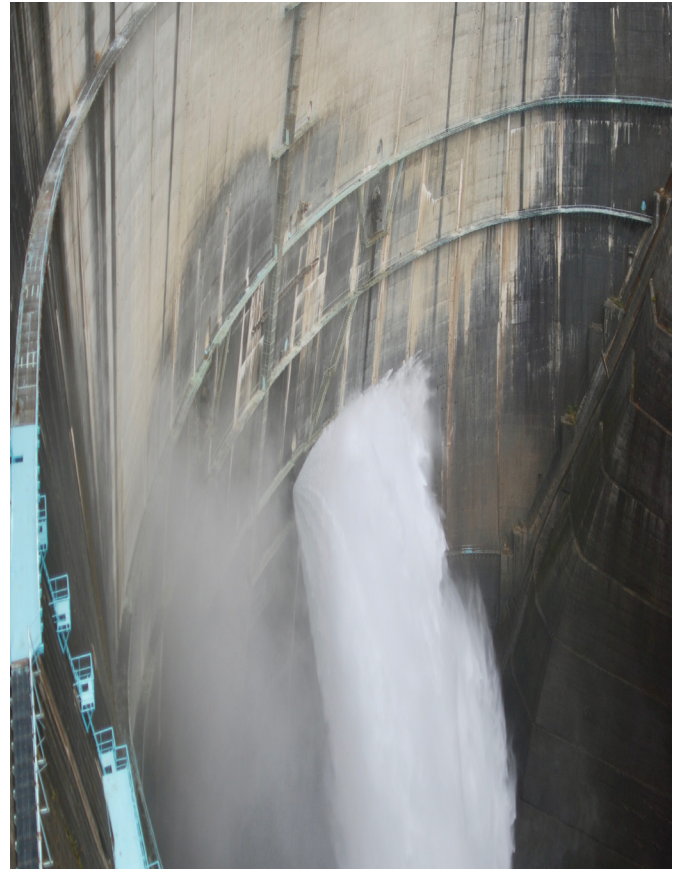
MANAGING EMERGENCY RESPONSE MORE EFFECTIVELY

Decisions during an emergency situation are too important to make without the right information. Targeting response to the correct actions can be difficult, especially when time and accuracy are critical. In these situations, real-time information on potentially damaging ground motion is crucial to initiating the proper emergency response procedures.

EARTHQUAKE IMPACT ALERTS (EIA)

During a seismic event, KMIDam EIA detects on-site shaking and automatically provides alerts on the exceedance of design performance criteria for an immediate understanding of the possible impact on the dam site, structures, and facilities. Information from sensors and real-time calculations provide actionable information on the level of impact, and the required response steps.

The longer it takes to respond to an emergency, the more costly the impact. KMIDam delivers increased situational awareness you can trust to help deliver a quicker and more appropriate emergency response.



BECOME BETTER PREPARED

Understanding the small changes to your structures that accumulate over time is the foundation to understanding what maintenance is required, and what steps should be taken to mitigate issues before they become larger problems.

Rapid and continuous evaluation of the structural integrity and performance of your dams is invaluable for decision makers to take appropriate actions before, during and after an earthquake event.

STRUCTURAL HEALTH & PERFORMANCE MONITORING (SHPM)

KMIDam SHPM performs automated structural assessments to provide continuous information, rapid notifications and state of health reports by leveraging a combination of smart sensing technology and predictive engineering computations.

The better you understand the long-term performance of your dams, the better prepared you are to make management decisions and react to changing needs before they become costly.

The Only Complete Dam Management Platform



IDENTIFYING CHANGES IN SEISMICITY

Large reservoirs of water can impact the surrounding region. Particularly in areas of high local seismic activity, the possibility of changing reservoir water levels inducing earthquakes on the existing tectonic environment is a real concern.

RESERVOIR INDUCED SEISMICITY MONITORING (RIS)

KMIDam RIS enables you to monitor the seismicity beneath and around the dam and correlate it to reservoir level variations. This information provides a comprehensive view of how changing water levels influence regional seismic activity, and helps you more completely understand the impact to the surrounding region.

IMPROVING OPERATIONS

Managing dams is multi-faceted, and involves many kinds of information and systems. These operations can be difficult without the proper tools in place.

MULTI-ASSET COMMAND AND CONTROL SYSTEM (CCS)

KMIDam CCS provides a redundant high-end data center that houses tools for monitoring the state-of-health of all deployed hardware, real-time data acquisition, and processing software systems with automated reporting and dissemination functions.

Deployed in dozens of environmental monitoring and dam networks, KMIDam delivers the information you need to meet the needs of all your stakeholders. Having all relevant information at your fingertips provides increased confidence in your operational procedures, the safety of your dams, and your overall dam management decisions.



A Trusted Partner

1

A Partner and Solution You Can Trust Today and in the Future:

Kinematics can enhance the KMIDam solution by coordinating related engineering services including geotechnical, structural engineering assessments, and more.

2

Dam Safety Group Member:

As a founding member of the Dam Safety Group, Kinematics is uniquely positioned to understand and meet the needs of its customers. Kinematics has delivered effective solutions for dam operators for decades, and the KMIDam platform demonstrates its commitment to driving the technologies and solutions for this market into the future.

3

Leading the Market Since 1969:

Since 1969, Kinematics, its subsidiaries, and partners have been the global market leaders in designing technologies, products, and solutions for monitoring earthquakes and their effects on people and structures. Our products represent the de facto world standards.

When implementing critical infrastructure, it's imperative that you select a partner you can trust. In addition to delivering its world-leading dam management platform, Kinematics is trusted by organizations across the world to provide operational, engineering, and other services.

"Technology You Can Trust"



KINEMATICS

Advancement through Innovation

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Defining Instrumentation Standards for the Advancement in Earthquake Science and Engineering



Seismology



Earthquake Engineering



Industry



Business Continuity